CORRESPONDENCE

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Myocardial infarction: the first 24 hours

SIR,—The leading article by Drs David P Lipkin and Colin J Reid (2 April, p 947) omits several important points, probably because the authors have taken them for granted. This is a mistake, however, because they are often overlooked.

The pain of acute myocardial infarction is often sickeningly unpleasant. The fear of death which it can induce, the atmosphere of panic in those around, an ambulance journey to the hospital, a wait in the accident unit, and then transfer to the coronary care unit can be frightening and unpleasant experiences. It is important that pain should be relieved as quickly as possible. The best drug is morphine or diamorphine given intravenously in smallish doses and repeated when necessary. It is also important that proper reassurance, understanding, and kindness are shown and that the sufferer should be admitted to a coronary care unit as soon as possible, in which there must be skilful and compassionate nurses. Many would argue that the sole justification for coronary care units is to provide quick and effective relief of pain, immediate defibrillation if ventricular fibrillation occurs, and appropriate treatment for other complications.

Many patients, particularly Roman Catholics, would like to see a priest but hesitate to ask. As a non-Catholic I was too arrogant to realise this for many years, and I was not alone. The commonest complications of myocardial infarction are loss of morale and a feeling of dependency, and these may never be overcome. Overt high technology can exacerbate them. Your article sensibly reviews the current favourable opinions about thrombolytic treatment. It also discusses the marginal benefits of β blockers, which are contraindicated in many patients, and the possible value of intravenous nitrates, which can cause severe headaches. These and other therapeutic measures now overshadow such treatments as anticoagulation and glucose, potassium, and insulin, which raised our hopes in the past.

If swift pain relief and compassionate care in a quiet atmosphere which engenders confidence are absent most doctors would themselves prefer to sit it out at home. They would let other victims provide the material to show whether emergency coronary arteriography, intracoronary thrombolytic agents, emergency angioplasty, and subsequent bypass grafting if these are unsuccessful are better than more conservative treatment. Perhaps fortunately, such aggressive methods are quite impracticable in most hospitals in Britain, even in those where facilities for coronary arteriography are available.

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SIR,—Drs David Lipkin and Colin Reid claim to have produced concise guidelines for the early management of myocardial infarction. The recommended use of streptokinase and possibly β blockade is based on information from large trials in which worthwhile improvements in mortality have been clearly shown, although the value of hydrocortisone and chlorpheniramine is less clear. It is surprising, therefore, that they include a recommendation to administer intravenous nitrates to all patients presenting with suspected myocardial infarction. In contrast to the streptokinase and β blocker studies, the evidence for the usefulness of intravenous nitrates has not been obtained from large well controlled trials which show a clear worthwhile improvement in mortality. Even the authors themselves, in their discussion, are cautious in their reference to the value of intravenous nitrates, saying only that pooled data suggest that they may reduce infarct size in some subgroups.

Intravenous nitrates are generally safe but can be expensive. The minimum cost per patient is £16 (current contract price per ampoule) and an average day's treatment at 4 mg/min would cost £32. Our coronary care unit serves a population of 180 000 and we currently admit 395 patients a year who are subsequently proved to have had a myocardial infarction; a further 339 patients with suspected, but not subsequently proved, myocardial infarction are admitted. Your leading article recommends that both groups of patients should be treated with intravenous nitrates. This would amount to an annual minimum expenditure of £11 750, which, extrapolated nationally, would cost the NHS at least £3·6m a year. Surely we require more evidence of substantial benefit before spending such a sum.

Although the pharmaceutical industry has been active in promoting intravenous nitrates, alternative routes of administration are much cheaper. Oral nitrates should produce similar effects to intravenous nitrates provided adequate doses are given. Although their absorption after myocardial infarction is likely to be unreliable initially, sublingual, buccal, and transcutaneous routes of administration are alternatives. Intravenous nitrates still possess the advantage of better dose titration but this is likely to be of benefit only in a few patients.

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